

Claims

- 1 1. A process for preparing a texturized fibrous
2 material, the process comprising:
3 shearing poly-coated paper having internal fibers,
4 to the extent that the internal fibers are substantially
5 exposed, resulting in a texturized fibrous material.
- 1 2. The method of claim 1, wherein said poly-coated
2 paper comprises polyethylene and paper.
- 1 3. The method of claim 1, wherein said poly-coated
2 paper comprises one or more layers of aluminum.
- 1 4. The method of claim 1, wherein at least about
2 50% of the fibers have a length/diameter ratio of at least
3 about 5.
- 1 5. The method of claim 1, wherein at least about
2 50% of the fibers have a length/diameter ratio of at least
3 about 25.
- 1 6. The method of claim 1, wherein at least about
2 50% of the fibers have a length/diameter ratio of at least
3 about 50.
- 1 7. A texturized fibrous material comprising poly-
2 coated paper having internal fibers, wherein said poly-
3 coated paper is sheared to the extent that the internal
4 fibers are substantially exposed.
- 1 8. The texturized fibrous material of claim 7,
2 wherein said material is incorporated into a structure or
3 carrier.

1 9. The texturized fibrous material of claim 8,
2 wherein the structure or carrier also comprises a texturized
3 fibrous material.

1 10. The texturized fibrous material of claim 7,
2 wherein said texturized fibrous material has a bulk density
3 less than about 0.5 grams per cubic centimeter.

1 11. The texturized fibrous material of claim 7,
2 wherein said texturized fibrous material has a bulk density
3 less than about 0.2 grams per cubic centimeter.

1 12. A composition comprising the texturized fibrous
2 material of claim 7 and a chemical or chemical formulation.

1 13. The composition of claim 12, wherein the
2 chemical formulation comprises a pharmaceutical.

1 14. The composition of claim 12, wherein the
2 chemical formulation comprises an agricultural compound.

1 15. The composition of claim 12, wherein the
2 chemical formulation comprises an enzyme.

1 16. A composition comprising the texturized fibrous
2 material of claim 7 and a liquid.

1 17. A composition comprising the texturized fibrous
2 material of claim 7 and a particulate, powdered, or
3 granulated solid.

1 18. The composition of claim 17, wherein the solid
2 comprises plant seed.

1 19. The composition of claim 17, wherein the solid
2 comprises a foodstuff.

1 20. The composition of claim 17, wherein the solid
2 comprises bacteria.

1 21. A composite comprising a thermoplastic resin
2 and the texturized fibrous material of claim 7, wherein:
3 the resin is selected from the group consisting of
4 polyethylene, polypropylene, polystyrene, polycarbonate,
5 polybutylene, thermoplastic polyesters, polyethers,
6 thermoplastic polyurethane, polyvinylchloride, and
7 polyamides.

1 22. The composite of claim 21, wherein at least
2 about 5% by weight of the fibrous material is texturized.

1 23. The composite of claim 21, wherein the resin is
2 polyethylene.

1 24. The composite of claim 21, wherein the resin is
2 polypropylene.

1 25. The composite of claim 21, wherein the
2 composite comprises about 30% to about 70% by weight resin
3 and about 30% to about 70% by weight texturized fibrous
4 material.

1 26. The composite of claim 21, further comprising
2 lignocellulosic fiber.

1 27. The composite of claim 21, further comprising
2 cellulosic fiber.

1 28. The composite of claim 21, wherein the
2 composite has a flexural strength of at least 6,000 psi.

1 29. The composite of claim 21, wherein the
2 composite has a flexural strength of at least 10,000 psi.

1 30. The composite of claim 21, further comprising
2 an inorganic additive.

1 31. The composite of claim 30, wherein the
2 inorganic additive is selected from the group consisting of
3 calcium carbonate, graphite, asbestos, wollastonite, mica,
4 glass, fiber glass, chalk, talc, silica, ceramic, ground
5 construction waste, tire rubber powder, carbon fibers, and
6 metal fibers.

1 32. The composite of claim 30, wherein the
2 inorganic additive comprises from about 0.5% to about 20% of
3 the total weight of the composite.

1 33. The composite of claim 21, wherein said
2 composite is in the form of a pallet.

1 34. The composite of claim 33, wherein said pallet
2 is injection molded.

1 35. The composite of claim 21, wherein said
2 composite is in the form of an article selected from the
3 group consisting of pipes, panels, decking materials,
4 boards, housings, sheets, poles, straps, fencing, members,
5 doors, shutters, awnings, shades, signs, frames, window
6 casings, backboards, wallboards, flooring, tiles, railroad
7 ties, forms, trays, tool handles, stalls, bedding,
8 dispensers, staves, films, wraps, totes, barrels, boxes,
9 packing materials, baskets, straps, slips, racks, casings,
10 binders, dividers, walls, indoor and outdoor carpets, rugs,
11 wovens, and mats, frames, bookcases, sculptures, chairs,
12 tables, desks, art, toys, games, wharves, piers, boats,
13 masts, pollution control products, septic tanks, automotive
14 panels, substrates, computer housings, above- and below-
15 ground electrical casings, furniture, picnic tables, tents,
16 playgrounds, benches, shelters, sporting goods, beds,
17 bedpans, thread, filament, cloth, plaques, trays, hangers,
18 servers, pools, insulation, caskets, bookcovers, clothes,
19 canes, crutches, and other construction, agricultural,
20 material handling, transportation, automotive, industrial,
21 environmental, naval, electrical, electronic, recreational,
22 medical, textile, and consumer products.

1 36. The composite of claim 21, wherein said
2 composite is in the form of a fiber, filament, or film.